

I. INTRODUCTIONA. PURPOSE AND ROLE OF THE EAST BAY REGIONAL PARK DISTRICT

The East Bay Regional Park District (referred to as "EBRPD" or the "District") is a State mandated special park district for the area of Alameda and Contra Costa Counties. Its headquarters are located in Oakland, California.

EBRPD MASTER PLANPurpose and Role of EBRPDPURPOSE

The East Bay Regional Park District shall acquire, develop and operate regional parklands in perpetuity for public use and shall conserve these lands for the purpose of making the outdoor environment available for the enjoyment and education of the general public.

ROLE IN THE COMMUNITY

The East Bay Regional Park District will thus become a major participant in improving the quality of life for Alameda and Contra Costa County residents.

ROLE POLICY AND OBJECTIVES

The Board of Directors, in order to provide direction for fulfilling the District's proper role in the community, establishes the objectives listed below as those necessary to accomplish the District's purpose.

These objectives are intended to provide the public, the Board of Directors and staff of the District, other governmental agencies and the private sector with a clear statement which will be used to guide the District in implementing this Master Plan:

1. To provide a diversified land and water system of regional parks, recreation areas, wilderness, preserves, trails and shorelines and parkland-related services which will provide District residents with opportunities for creative use of outdoor leisure time.

2. To acquire, preserve and interpret significant examples of the natural environment, including biologic, geologic, scenic, and outdoor historic resources which exist within the boundaries of the District.
3. To cooperate with other public agencies in the acquisition, preservation and management of non-park open space lands.
4. To emphasize balance of both environmental concerns and regional recreation opportunities within the system of parklands operated by the District.
5. To effectively conserve energy by dispersed location of parklands close to the people throughout the District by reasoned management of energy resources available to the District; and by cooperating with other public and private entities in joint efforts to conserve diminishing energy resources. (Page 7).

B. MASTER PLAN GUIDELINES/PURPOSE OF DOCUMENT

The Resource Analysis is a part of the planning process required by the East Bay Regional Park District Master Plan (adopted 1973, revised 1980), the major policy document of the District. The purpose of the Resource Analysis is to identify features of the parkland which have significant resource value and to provide a tentative plan for vegetation and wildlife management. After the adoption of the Resource Analysis, a Land Use Development Plan and Environmental Impact Report (LUDP/EIR) will be prepared for each of the parks.

C. LOCATION AND PARK DESCRIPTION

Wildcat Canyon (WCRP) and Charles Lee Tilden (TRP) Regional Parks are adjacent parklands located in the Berkeley Hills east of the cities of Richmond and El Cerrito, in Contra Costa County, CA. (See Fig. 1). They consist of Wildcat Canyon and several tributary canyons bordered by two ridges, the Berkeley Hills to the west and San Pablo Ridge to the east. The topography is generally rugged. The canyons are wooded and the ridges are covered with brush or grassland. Both parks contain enclosed areas visually isolated from urban development, as well as ridges with extensive views.

For the purposes of this analysis, WCRP is meant to include Alvarado Park, a city park adjacent to it, which the City of Richmond has offered to donate to the EBRPD. This parkland includes about 2,430 acres with access from Wildcat Canyon Parkway. About one percent of WCRP is developed with recreation facilities, including an environmental education center, a farm livestock

II. HISTORY

Lt. Pedro Fargas led the first Spanish expedition to explore the East Bay area in 1772. Along a creek which he called Arroyo Chico (now Wildcat Creek) lived a small triblett of Indians who called themselves the Huchiun. These people were hunters and gatherers; the women gathered acorns, roots, bulbs, seeds and greens, while the men fished and hunted for deer, tule elk, small mammals and waterfowl. They spoke a dialect called Bay Miwok (Milliken, 1981). In 1797, the Mission San Jose was built in the Fremont area and many East Bay Indians were brought there. In 1834, the Missions of California were secularized and the surviving Indians were released.

There are five prehistoric sites recorded in the Wildcat Canyon area (See Figs. 4 and 5). Three of these are in Alvarado Park, one is on private property near Alvarado Park and the fifth site may have been destroyed by the construction of Jewel Lake. The archaeologist who recorded the latter site did so based upon second-hand information; he never visited the site and recent investigation has failed to locate it.

In 1983, a reconnaissance of both WCRP and TRP was conducted by qualified archaeologists without identifying any prehistoric resource upstream of the cluster of sites in or near Alvarado Park (Holman, 1983). The radical change in vegetation which has occurred in this area since prehistoric times may have precluded access to areas of prehistoric use and/or habitation (ibid.). Existing evidence, although possibly incomplete, indicates that the prehistoric use of the park area consisted of hunting and food gathering trips centering upon living areas located at the mouth of the canyon in what is now Alvarado Park.

In 1841, virtually all of what is now the parks was granted to Juan Jose Castro, as Rancho El Sobrante. As with other nearby ranchos, cattle grazing was the main land use. The cattle were raised for their hides and for tallow.

After the American conquest of California in 1848, new settlers began taking over the grant lands. A series of lawsuits arose regarding the validity and proper boundaries of the Castro grant. These suits continued for many years, until 1893, when the court set the boundaries of Rancho El Sobrante and apportioned land to the various litigants.

Around 1890, the water companies began to take an interest in Wildcat Canyon. The Alameda Water Company purchased 10 acres of land near the present Botanic Garden for wells. Eight wells were dug, all of which struck water at less than 60 feet. The water was pumped to Summit Reservoir. Other lands were purchased in 1905 by the Contra Costa Water Company. In 1907, these companies were united into the People's Water Company, which by 1909 had purchased most of the canyon as watershed land. A home was built for the caretaker, Pascuale Bruno, along Wagner Road (now called Wildcat Canyon Road) (See Fig. 5).

The first of these is the fact that the
the second is the fact that the
the third is the fact that the
the fourth is the fact that the
the fifth is the fact that the
the sixth is the fact that the
the seventh is the fact that the
the eighth is the fact that the
the ninth is the fact that the
the tenth is the fact that the

the eleventh is the fact that the
the twelfth is the fact that the
the thirteenth is the fact that the
the fourteenth is the fact that the
the fifteenth is the fact that the
the sixteenth is the fact that the
the seventeenth is the fact that the
the eighteenth is the fact that the
the nineteenth is the fact that the
the twentieth is the fact that the

the twenty-first is the fact that the
the twenty-second is the fact that the
the twenty-third is the fact that the
the twenty-fourth is the fact that the
the twenty-fifth is the fact that the
the twenty-sixth is the fact that the
the twenty-seventh is the fact that the
the twenty-eighth is the fact that the
the twenty-ninth is the fact that the
the thirtieth is the fact that the

the thirty-first is the fact that the
the thirty-second is the fact that the
the thirty-third is the fact that the
the thirty-fourth is the fact that the
the thirty-fifth is the fact that the
the thirty-sixth is the fact that the
the thirty-seventh is the fact that the
the thirty-eighth is the fact that the
the thirty-ninth is the fact that the
the fortieth is the fact that the

the forty-first is the fact that the
the forty-second is the fact that the
the forty-third is the fact that the
the forty-fourth is the fact that the
the forty-fifth is the fact that the
the forty-sixth is the fact that the
the forty-seventh is the fact that the
the forty-eighth is the fact that the
the forty-ninth is the fact that the
the fiftieth is the fact that the

the fifty-first is the fact that the
the fifty-second is the fact that the
the fifty-third is the fact that the
the fifty-fourth is the fact that the
the fifty-fifth is the fact that the
the fifty-sixth is the fact that the
the fifty-seventh is the fact that the
the fifty-eighth is the fact that the
the fifty-ninth is the fact that the
the sixtieth is the fact that the
the sixty-first is the fact that the
the sixty-second is the fact that the
the sixty-third is the fact that the
the sixty-fourth is the fact that the
the sixty-fifth is the fact that the
the sixty-sixth is the fact that the
the sixty-seventh is the fact that the
the sixty-eighth is the fact that the
the sixty-ninth is the fact that the
the seventieth is the fact that the
the seventy-first is the fact that the
the seventy-second is the fact that the
the seventy-third is the fact that the
the seventy-fourth is the fact that the
the seventy-fifth is the fact that the
the seventy-sixth is the fact that the
the seventy-seventh is the fact that the
the seventy-eighth is the fact that the
the seventy-ninth is the fact that the
the eightieth is the fact that the
the eighty-first is the fact that the
the eighty-second is the fact that the
the eighty-third is the fact that the
the eighty-fourth is the fact that the
the eighty-fifth is the fact that the
the eighty-sixth is the fact that the
the eighty-seventh is the fact that the
the eighty-eighth is the fact that the
the eighty-ninth is the fact that the
the ninetieth is the fact that the
the ninety-first is the fact that the
the ninety-second is the fact that the
the ninety-third is the fact that the
the ninety-fourth is the fact that the
the ninety-fifth is the fact that the
the ninety-sixth is the fact that the
the ninety-seventh is the fact that the
the ninety-eighth is the fact that the
the ninety-ninth is the fact that the
the hundredth is the fact that the

In 1921, the East Bay Water Company, which had taken over People's Water Company in 1916, built a diversion dam on Wildcat Creek, creating Wildcat Lake (now known as Jewel Lake). The function of this dam was to divert water from the creek into the San Pablo tunnel, then nearing completion, to supply water from San Pablo Reservoir to the East Bay cities. However, the water quality of the creek was poor, due mainly to the high amount of suspended clay particles, and the diversion was ended. With the completion of the San Pablo Reservoir and pipeline in 1919, the well pumping became uneconomical and was abandoned.

Over the years, the small water companies were consolidated, but inadequacies in the water supply continued. In the hope of ending the recurring water crises, the voters of the East Bay cities in 1923 authorized the establishment of the East Bay Municipal Utility District (EBMUD), which in 1928 acquired the holdings of the East Bay Water Company. In its acquisition, the Utility District gained title to 40,000 acres of land in the Berkeley and Contra Costa Hills. Fifteen thousand of these acres were considered surplus.


Into the Twentieth Century, ranching continued as the major land use and grazing the most important activity for dairy and meat production. In addition, some hay and commercial vegetables were raised. The largest of several tenant ranchers was the Sweetbriar Dairy (See Fig. 5), which supplied many of the dairy products consumed in Berkeley and neighboring areas. The Curran family owned their ranch, with a house north of Lake Anza (See Fig. 5).

For a few years, the Pozzuolana Cement Company quarried an outcrop of limestone on a small ridge north of Jewel Lake (See Fig. 5) to make mortar cement. Apparently, no structures were associated with the quarry site.

In 1934, the U.S. Civilian Conservation Corps established a camp in TRP (See Fig. 5). This camp functioned as a base for workers both of the CCC and the Works Projects Administration (WPA). Men employed in these groups carried out many projects from tree planting and erosion control work to road construction. They did much of the work clearing the golf course of eucalyptus trees. Stone signs, drinking fountains, toilet building and drainage structures built by the workers can still be seen today in TRP and Alvarado Park.

In 1936, almost 1,910 acres of surplus lands, known as "Central Wildcat Canyon" and "Upper Wildcat Canyon" were purchased by the Park District to create the first regional park, which was then called Wildcat Canyon Regional Park. In 1937, the name was changed to Charles Lee Tilden Regional Park, in honor of the first President of the East Bay Regional Park District's Board of Directors.

During World War II, a major Army communications center for the West Coast was located in TRP (See Fig. 5). The main structure is now used as a District warehouse.



Digitized by the Internet Archive
in 2024 with funding from
State of California and California State Library

<https://archive.org/details/C124903504>

III. EXISTING DEVELOPMENT

A. ACCESS AND CIRCULATION

Auto Access: Access to the northerly end of WCRP is from the end of Wildcat Canyon Parkway (See Fig. 6). However, this road has been closed to the public since early 1981, due to landslide damage. At present, about 100 yards of Wildcat Canyon Parkway, near its intersection with McBryde Avenue in Richmond, is used as an informal staging area for pedestrian access to WCRP. Access to the southerly end of WCRP is via Canon Drive and Central Park Road in TRP (See Fig. 7). Canon Drive has been closed to the public since early 1982, due to landslides.

Access to TRP is from Wildcat Canyon Road, Shasta Road and Grizzly Peak Blvd. (See Fig. 7). Wildcat Canyon Road traverses the park and provides access from both east and west. Shasta Road provides access to TRP from the west. Grizzly Peak Blvd. borders TRP on its southwesterly side and intersects with two of the roads to the interior of the park.

Internal vehicular circulation in TRP is provided by Central Park Drive, South Park Drive and Golf Course Drive (See Fig. 7).

Service Roads and Trails: Approximately 23 miles of service roads are used for maintenance, fire protection, and as hiking and equestrian trails. Four miles of these roads are paved, primarily Nimitz Way (2.3 miles) which formerly served the Army NIKE base on San Pablo Ridge. All-weather access roads also serve the park service yard, cattle corrals, and the communications equipment on Vollmer Peak.

Hiking and equestrian trails unsuitable for vehicles complete the circulation system. Most trails are used by horses, although some, especially in the Nature Area and around Lake Anza, are designed for hikers only. There are approximately 20 miles of hiking/equestrian trails in the parks.

There are in addition, numerous fire roads and trails which are not maintained and are being allowed to cover over with brush, and others which have been created by park users and are maintained by pressure of foot or horse traffic.

Public Transportation: AC Transit provides bus access to several points along the western side of WCRP and TRP (See Figs. 6 and 7). Line 68 stops at the intersection of McBryde Avenue and Arlington Blvd. in Richmond and within one block of Alvarado Park. Line 67 stops at the intersection of Spruce Street and Wildcat Canyon Road within four blocks of the Environmental Education Center. Lines 7 and 8 both stop at the intersection of Grizzly Peak Blvd. and Golf Course Road, within three blocks of the golf course. There is no public transportation access to points near the easterly boundary of the parks.

B. RECREATIONAL FACILITIES

Botanic Garden: This 6-acre facility was begun in 1940 as a nursery to serve the park, was modified over the years, and eventually became a public garden. It features California native plants, and contains examples of plants from every part of the State. In 1973, a 1,500 square-foot Visitor Center was built to allow group meetings and house an office and herbarium.

Brazilian Building: After the San Francisco World's Fair, the EBRPD expressed an interest in acquiring equipment from the Fair. The Brazilian Commission donated a variety of tropical hardwoods and other furnishings for use in an auditorium, which it was agreed would be known as the Brazilian Room. The building, dedicated on May 18, 1941, consists of a ballroom (the Brazilian Room), with ancillary facilities (kitchen, restrooms), a small office space, and a residence. It is surrounded by five acres of maintained lawn areas, and is a popular spot for weddings, dances, and meetings. The ballroom is approximately 2,500 square-feet in size.

Environmental Education Center: This structure replaced the cluster of buildings used by the CCC in the 1930's, and was opened in 1974. It houses an exhibit hall, auditorium for 150 persons, a fireplace room, a laboratory/classroom, staff offices, and a staff library.

Golden Gate Live Steamers: This area is leased by a special interest group which has built track and clubhouse facilities to accommodate the operation of smaller scale-model live-steam trains. Club members provide free rides on their trains to members of the public.

Group Camps: There are five locations which are available for overnight group camping on a reservations basis; Gillespie Camp (south of the golf course), Wildcat View Camp (near the EEC), New Woodland Camp (near the EEC), Girl Scout Camp (in Alvarado Park), and Primitive Camp (in Alvarado Park).

Lake Anza Swimming Area: Lake Anza was built in 1938 and opened for swimming in 1940. In 1965, the original change rooms/concession stand/office was replaced with a new structure, and the beach redesigned. To the north is a 3-acre field used for picnicking and lawn games.

Little Farm: The Little Farm was created in 1955. It consists of a barn and small corrals with sheep, cows, goats, chickens, pigs and other farm animals.

Little Train: This is a scale-model live-steam railroad built in 1952 and operated by a lessee. The trains operate on a 1.25-mile loop track and rides are available to the public on a fee basis.

Merry-go-round: Built in 1911, this beautiful antique for many years operated in the Los Angeles area. In 1948 it was sold, and through a lease agreement, became a feature in Tilden Park. In 1977, the Merry-go-round was purchased by the EBRPD and is operated by a lessee. It is open to the public on a fee basis.

Picnic Areas: There are 13 reservable group picnic sites and a dozen small family picnic sites in the area south of the EEC. There are 15 group picnic sites (which function both as reservable and family sites) located in Alvarado Park.

Pony Ride: This facility has been located in TRP since 1959. It features a track on which children can ride ponies, and is operated by a private lessee.

Tilden Golf Course: The EBRPD built this 18-hole golf course in 1937, using CCC and WPA workers. It is operated under a lease by a private firm which also operates a restaurant and pro shop. All are open to the public on a fee basis.

C. SERVICE FACILITIES

At the south end of TRP there is a service complex area which fills a variety of functions. District-wide Fire Department headquarters and Fire Station #1 of the Police Department are located there. A vehicle maintenance facility serving the northerly portion of the District, along with the offices of staff concerned with District-wide vehicle purchasing and sales, are located there. The Central Stores warehouse serving the entire District is located there. The offices of the roads and trails maintenance crew which serves the entire District is located there. The offices and corporation yard serving TRP is there. There also is a security residence there.

A branch office of the EBRPD Police Department operates out of the offices in the Brazilian Building. There also is a security residence there.

There is a small corporation yard serving WCRP and a security residence at the EEC.

D. UTILITIES

Water: The park is supplied by EBMUD water lines at several points. One line descends along Canon Drive and serves the EEC, the Pony Ride, and nearby picnic areas. Another serves the Merry-go-round and nearby picnic areas. A third serves the Lake Anza swimming complex. A fourth serves the Brazilian Building and the Botanic Garden. A fifth serves the Corporation Yard, the train complex and the group camps and picnic areas southerly of the golf course. The irrigation water for the golf

LEGEND

- + PICNIC AREAS
- * GROUP PICNIC-RESERVABLE
- OTHER RECREATION FACILITIES
- PAVED AUTO ROAD
- HIKING/RIDING/SERVICE TR
- MULTIPURPOSE RECREATIONAL SERVICE TRAIL
- REGIONAL TR.
- HIKING/SERVICE TR.
- HIKING TR
- FACES TR (BOY SCOUTS)
- STEAM RAILROAD
- STAGING (PARKING)
- CREEK
- PARK BOUNDARY

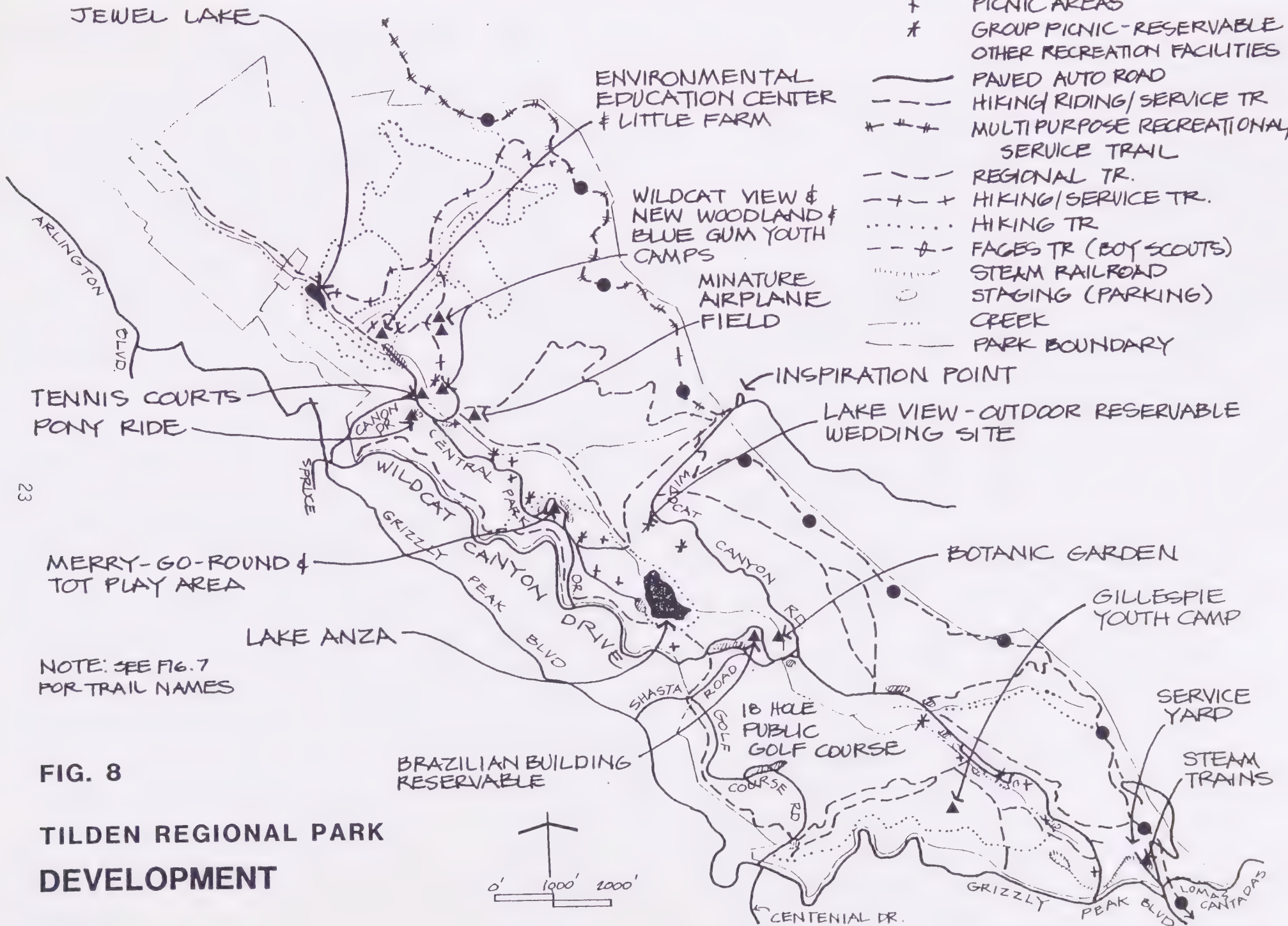


FIG. 8

TILDEN REGIONAL PARK DEVELOPMENT

course is supplied from Berkeley View Reservoir and Golf Gate. Alvarado Park is served from a water line under McBryde Avenue. A spring located on the easterly side of the golf course is boxed and piped to fill a wooden water tank; however, this tank is not connected to any water line. A four-inch water line extends into WCRP along Rifle Range Road, but does not serve any facility at present. No water is available on the eastern side of the parks.

Electricity and Telephone: These are available at major facilities, including all the service facilities, the Little Train, the Golf Course, the Brazilian Building, the Botanic Garden, the Lake Anza swimming complex, the Merry-go-round, the Pony Ride, the EEC, and Alvarado Park.

Gas: The golf course clubhouse is served by a natural gas pipeline, and natural gas line is available at the old pavilion building site in Alvarado Park. Other major facilities are served with bottled gas.

Sewage: The City of Berkeley maintains a sewer line along Wildcat Canyon Road from the city limits to Spruce Street to serve the west slope of the hills. Sewage from the golf course and Brazil Building areas drains into this line, while sewage from Lake Anza is pumped up to it. The old pavilion building site in Alvarado Park is served by a sewer line. All other sanitary facilities are either chemical toilets or subsurface holding tanks which are periodically pumped out.

E. OWNERSHIP, EASEMENTS AND OTHER LEGAL AGREEMENTS

Almost all areas of TRP and WCRP are owned in fee by the EBRPD. Alvarado Park is owned by the City of Richmond, which has offered to transfer title to the EBRPD.

Several major transmission lines, a smaller power line and a telephone line cross the parks (See Figs. 6 and 8) on easements. Several other power line easements are unoccupied. Other lines serving District facilities are by license agreement.

A sanitary sewer easement from Canyon Estates extends across Wildcat Creek and northward along service roads (Fig. 6). The actual sewer line has been destroyed by landslides and is to be removed or filled by the City of Richmond.

The East Bay Municipal Utility District owns several small parcels for water tank sites in both parks and has an easement for a serviceway to the San Pablo Tunnel in WCRP. The Utility District also retains water rights over both parks. Fifty percent of mineral rights, 500 feet or more below the surface over most of both parks, are owned by others. The mineral rights exclude surface use or entry rights.

Utility easements include entry rights and the right to maintain or repair any facility.

WCRP is grazed by a private cattle operator under a lease. The eastern fence of the grazed area does not follow the property line, and is subject to an agreement between EBRPD and EBMUD.

F. ADJACENT LAND USE

Tilden and Wildcat Parks are adjacent to Berkeley, El Cerrito and Richmond on the west and open space lands on the east. A more detailed discussion of adjacent uses, plans and potential impacts on the two parks follows below. Refer to Fig. 9 for location of the following numbered areas.

1. Private residential development in the unincorporated area of Contra Costa County. No additional development is anticipated.
2. Private agricultural land in the unincorporated area of Contra Costa County. Future development proposals may present visual and other conflicts with park uses.
3. Agricultural land approved for residential development is part of the City of Richmond under a Planned Unit Development. Certain uses or possible development of the open space portions of this PUD could adversely affect park uses.
4. Watershed land owned by EBMUD which is maintained as permanent open space with restricted access. Certain trails are open on a permit basis.
5. Private agricultural land in the unincorporated area of Contra Costa County. Future development proposals may present visual and other conflicts with park uses.
6. Publicly owned watershed and ecological reserve lands owned by EBMUD and the University of California; no development is anticipated.
7. Private residential development in the Cities of Berkeley, El Cerrito and Richmond and in the unincorporated Kensington District of Contra Costa County. The proximity of development to steep slopes covered with a high fuel vegetative cover presents a possible hazard of wildfire in the vegetation, threatening ridgetop homes.
8. City of Richmond right-of-way for Wildcat Canyon Parkway.

IV. NATURAL RESOURCES

A. TOPOGRAPHY AND VISUAL QUALITY

The dominant topographic features of the area are San Pablo Ridge, Wildcat Canyon and the crestline of the Berkeley Hills on the west. The complex geologic history of the area has resulted in several striking landforms and undulating ridgelines. Elevations range from 1,913 feet at Vollmer Peak and 1,759 at Grizzly Peak (the highest points in Berkeley-Oakland Hills) to about 300 feet along Wildcat Creek on the northwestern boundary of the parks. San Pablo Ridge averages somewhat higher elevations than the Berkeley Hills, and panoramic view of the Bay Area are available. Other high points on the crest of the Berkeley Hills include Wildcat Peak (1,250 feet), Frowning Ridge (1,740 feet), King's Crown (1,380 feet) and Rough Hill (1,300 feet).

Wildcat Canyon is relatively broad and gently sloping in some areas, narrow and gorge-like in others. Side creeks have created numerous tributary canyons. Wildcat Gorge between Lake Anza and Sweetbriar Meadow where Wildcat Creek has cut through an 11 million year-old lava flow, is a narrow gorge $\frac{1}{2}$ -mile long with steep cliff sides up to 200 feet above the creek, including an area of exposed lava with caves caused by the erosion of less resistant materials.

Most of the parkland is steep and rugged. Flat land is restricted to the alluvial areas and ridgetop flats built up behind shoulders of resistant rocks. Flat or gently sloping land suitable for intensive recreation totals about 120 acres, much of which is already developed.

The rugged topography of the two parks is covered primarily with naturalized vegetation, but the parks retain a natural landscape quality. However, in many parts of TRP, there are views of manmade features such as the towers on Grizzly Peak, which are visually intrusive. Large groves of eucalyptus, planted in the parks in the early 1900's, also contrast the natural vegetation. Views from San Pablo Ridge on a clear day extend to the Sierra on the east, Mt. St. Helena on the north, Mt. Hamilton on the south and the Farallon Islands on the west.

Certain topographic features provide an isolated visual impression for hikers and equestrians; these include Belgium, Havey, Laurel and Big Springs Canyons.

B. HYDROLOGY AND WATER QUALITY

The two parks occupy about seven square-miles of the 11 square-mile watershed of Wildcat Creek. The upper five miles of the creek are permanent and receive water from several springs. The lower six miles flow intermittently and are subject to frequent and extensive flooding (Ecological Analysts, 1981). There are two major and 20 minor lakes and ponds in the parks. The major lakes are Lake Anza and Jewel Lake.

Lake Anza was built in 1938 as a source of water supply for irrigation of the park's golf course and as a recreation resource. It is no longer used as a water supply; recreation facilities have been developed along the lake's westerly shore. In 1964, the lake was drained for repairs to the dam. Lake Anza occupies about 10 acres, and contains between 500 and 700 acre-feet of water; the reservoir is drawn down a few feet each year in anticipation of winter rains. The water in Lake Anza is well supplied with nutrients and free from detectable levels of chlorinated hydrocarbons, polychlorinated biphenyls and herbicides (EBRPD, unpublished data). During the summer, the water becomes thermally stratified; the surface water is warm (60 to 70°F) while the water below 20 feet is cooler (45 to 50°F) (ibid.). Dissolved oxygen drops from over seven parts per million at the surface to near zero in the lower layers of the lake during the summer months (ibid.). The water of the lake is alkaline (ranging from a Ph of 7.5 to 8.7 seasonally) (ibid.). These water conditions are conducive to seasonal "blooms" of aquatic plants, most notably the blue-green algae. On one or two occasions per year, these blooms become great enough to require treatment with an algacide (cooper sulfate) to maintain a water quality suitable for body-contact water sports.

Jewel Lake was built in 1921 as a source of public water supply, but was not used for this purpose more than five years. By 1966, Jewel Lake was almost completely filled with silt and in 1962 was dredged to a maximum depth of 12 feet. By 1978, it had again filled to a maximum depth of six feet. The lake occupies about two acres and contains 7 to 10 acre-feet of water year-round. No water quality data is available for Jewel Lake; however, its vegetation and wildlife appear to indicate that the water is relatively warm (60 to 70°F), well oxygenated and rich in nutrients.

The other ponds are each less than two acres in area and contain less than six acre-feet of water. The quality of the water in them is not monitored. They are used as part of the golf course or for a livestock water supply, and for wildlife habitat enhancement purposes.

Wildcat Creek, as it flows through the parks, has a well-developed riparian vegetation over-story and a bottom characterized by large rocks and cobbles with silt and sand between. In Alvarado Park, several small rock and concrete impoundments were created as part of park development in the 1930's; these have fallen into disrepair and filled with silt. Summertime flows range from 0.2 cubic feet per second (just downstream from Jewel Lake) to 1.4 cubic feet per second (near the Rifle Range Road crossing). The lower portions of the watershed are urbanized, and are part of the City of Richmond. In the winter, Wildcat Creek frequently overflows its banks in the lower watershed area. At the Santa Fe Railroad tracks crossing, this occurs wherever flows exceed 400 cubic feet per second; an event which has a probability of occurring once every 2.3 years (Ecological Analysis, 1981). The Contra Costa County Flood Control District and the U. S. Army Corps of Engineers have plans to channelize the lower reaches of Wildcat Creek for flood control purposes. The creek's water is close to neutral (Ph 7.7), well oxygenated (about 8.2 parts per million), and cool (in the summer about 65-70°F) (EBRPD, unpublished data). Although the creek has been

polluted in the past as a result of spills of untreated sewage and of runoff from horse paddocks, testing in 1982 did not reveal evidence of this kind of pollution. That testing did indicate that large amounts of nitrates and phosphates were present, resulting in a bloom of filamentous green algae. It appears that these nutrients are present in elevated amounts as a result of silt and sediment reaching the creek from several active landslides and other erosion areas within WCRP.

The portion of TRP near the Botanic Garden has been used as a water well field. A total of eight wells supplied domestic water for the Berkeley area from 1890 to 1919. The groundwater resources are not now used, and therefore the quality and quantity of these resources in the two parks are unknown.

C. GEOLOGY AND SOILS

Bedrock in the Wildcat/Tilden Park area includes other basement rocks of the Cretaceous period (100 to 135 million years before present) and much younger overlying rocks of the Tertiary period (7 to 70 million years before present).

The older basement rocks are part of the Franciscan group, including rocks which were formed by sediments on an ocean bottom and rocks which have been metamorphologically changed by heat and pressure. Common rock types of the Franciscan group include serpentinite, greenstone, graywacke, chert, shale, sandstone and glaucophane schist. Unweathered rocks of the Franciscan group are dense, hard and resistant; however, when the rocks have been cracked by weathering or earthquake fault movement, they can disintegrate and become much less stable (Bishop, et al., 1973). The general extent of these rocks in the Wildcat/Tilden area is shown in Figs. 10 and 11.

The younger overlying rocks are part of the Contra Costa group, including rocks which were formed by alluvial sediments or as deposits on the bottom of freshwater lakes, and rocks which were formed as a result of volcanic activity. Common types of rocks in the Contra Costa group include chert, shale, sandstone, siltstone, tuff, lava, breccia and conglomerate. Among the identified formations of the Contra Costa group are the Claremont, Orinda, Moraga, Siesta and Bald Peak formations (see Fig. 10 and 11). The portions of the Contra Costa group which consist of sandstone, siltstone and conglomerate, include significant amounts of clay materials, resulting in a fairly incompetent bedrock (ibid., Kachadoorian, 1956, Radbruch and Weiler, 1963). This condition is prevalent in the Orinda formation and in the undifferentiated portions of the Contra Costa group (see Fig. 10 and 11).

Alluvial materials are also present in small deposits along the lower portions of Wildcat Creek and its larger tributaries. This consists of clay, silt and gravel deposited by the creeks. The larger areas of this material are shown in Figs. 10 and 11; however, there are numerous smaller deposits of alluvial material not mapped.

The bedrock has been uplifted, bent and, in places, broken by tectonic forces. There are numerous inactive faults in the area, and at least one bedrock fault (the Wildcat Fault), which is considered active along the lower part of its reach within the parks (See Fig. 10). Additionally, the area may be subject to severe seismic shaking in the event of a major earthquake on nearby reaches of the Hayward Fault (0.25 miles westerly of the parks) or the San Andreas Fault (15 miles westerly of the parks).

The weak and broken nature of the bedrock, combined with Mediterranean climate and severe seismic shaking, have provided conditions that are conducive to numerous bedrock landslides and soil failures. The convex shape of the slopes gives evidence that these "mass wasting" processes are more important than erosion in the formation of the area's topography. Numerous portions of the site that have been mapped as having landslides (Nilson, 1975) (See Figs. 10 and 11). It also is likely that some landslides exist which have not been mapped.

The presence of an active fault in the parklands also presents the possibility of a rupture of the ground surface in the event of a major movement along that fault. The proximity of active faults also presents a potential threat to the integrity of all man-made structures; however, of special interest is the possibility of a seismically-induced failure of the Lake Anza Dam. Such a failure would require prompt emergency action (within 30 minutes) to block off U.S. Interstate 80 in both directions and to evacuate Riverside School and adjacent homes (O'Neil, undated). If such an evacuation is not promptly accomplished, a substantial loss of life could occur, along with the significant damage resulting from the inundation following the dam's failure. It is also likely that severe seismic shaking could weaken the failure planes in the area's landslides, and result in increased landslide activity both during and for the year following such shaking.

The soils are generally shallow (less than 20 inches deep), slightly to moderately acidic with moderate to high erosion potentials. These include loams and clay loams of the Gilroy, Los Osos, Milshom, Los Gatos and Lodo series. There are smaller areas of clay soils from the Diablo, Alo and Shehorn series. Almost all these soils have a Storie index of five or six which means that they are poorly suited or unsuited for intensive agriculture. The soils vary from low to high shrink potential, but are moderately to highly corrosive to uncoated steel.

D. CLIMATE

The WCRP and TRP area has a Mediterranean climate; cool, wet winters and warm, dry summers. The summer heat is moderated by the influence of coastal fog. When warm temperatures persist in the inland valleys of the State for several days, a local low pressure area is created. This draws the cool coastal fog inland to the Wildcat/Tilden area, where its persistence from late evening until late morning acts to limit the high temperature of the day. In the winter, the daily high temperatures are

in the mid-50's (degrees Fahrenheit), while evening lows are in the low 40's; frost is rare. In the summer, the daily high temperatures are in the mid-70's, while evening lows are in the mid-60's.

Winds come predominantly from the west, except during winter storms. Typical summer wind patterns are calm in the morning hours, with breezes of up to 15 to 20 miles per hour occurring in the evenings, and calm returning at night. During the winter, huge cyclonic storms come off the Pacific Ocean. These are generally preceded by one or more days of southerly winds caused by the counterclockwise circulation of the storms.

Precipitation occurs almost exclusively as rainfall brought by the winter storms; snow and hail are rare. About 90 percent of this precipitation falls between the months of November and March. Total precipitation amounts to between 22 and 24 inches per year (Rantz, 1971). Some of the plants in the area are able to supplement this rainfall by condensing moisture out of the summer fog and/or by absorbing it directly from the air. Air pollution may tend to make local rainfall acidic; however, there is no data to document this. Lake Anza measures slightly alkaline (Ph 7.5 to 8.7), indicating that any such effect is not yet significant.

E. VEGETATION

Human influence has had a strong effect on the vegetation of WCRP due to the following:

- the introduction of large numbers of European grazing mammals (for 200 years),

- the extirpation of the tule elk and the extinction of the California grizzly bear,

- the subsequent removal of grazing mammals from all parts of Tilden Regional Park,

- the suppression of wildfires,

- the planting of a variety of non-indigenous trees,

- the planting and logging of eucalyptus trees, and

- the creation of Lake Anza, Jewel Lake and numerous other smaller man-made water impoundments.

A description of the vegetation of the two parks is presented below using common names. A more detailed species list is presented in the Appendices giving both common and scientific names. Maps of the vegetation are presented in Figs. 12 and 13.

Grassland occupies about 2,300 acres of the parks. Major grassland areas are on the upper, south and west-facing slopes of San Pablo Ridge. The grassland consists primarily of introduced annual species, such as wild oats, barleys and bromes. Some areas also contain stands of native grasses, particularly on the rockier sites. Needlegrass, meadow barley and creeping wildrye are the most common natives. Native wildflowers in the park are diverse and abundant; species include the California poppy, lupine, wild hyacinth, buttercup and mallow.

The predominance of non-native grasses results from the introduction of European cattle in the 1700's and their subsequent maintenance at high population levels through two of California's 20-year-long drought cycles. The resulting preferential grazing pressure upon California's native perennial bunch-grasses led to a substantial reduction of their extent in the parks and to the predominance of annual grasses, especially the European grasses which were accidentally introduced along with the cattle. About 200 years after the introduction of cattle, the land was acquired as a regional parkland and large grazing mammals were excluded from all of TRP but not from WCRP. After grazing mammals were removed (in the mid-1930's), coyote brush began actively to invade the grasslands of TRP. Additionally, extensive plantations of eucalyptus trees were placed in the grassland portions of the parks, starting in about 1910.

Brushland occupies about 800 acres of the parks. Major brushland areas are on the northeast-facing slopes of the Berkeley Hills and of San Pablo and Lookout Ridges. The brushland consists of such species as coffeeberry, thimbleberry, ninebark, rose, ocean spray, osoberry, toyon, currant, blueblossom, elderberry, coyote brush and monkeyflower. In the drier, south and west-facing sites, the brushland includes stands of coyote brush, sagebrush, and monkeyflower.

The brushland is subject, and adapted to, the periodic occurrence of wildfires. Such fires consume the standing dead branches of the brushy plants, releasing their nutrients to the soil, and creating soil conditions conducive to the germination of the seeds of the brushland plants. Some of these seeds cannot germinate until they have been exposed to the heat and soil conditions associated with these periodic fires. In the years before humans arrived in California, these fires occurred spontaneously or as a result of lightning. When the prehistoric humans arrived, they developed various hunting and gathering practices involving the deliberate setting of fires in the brushland and other vegetative associations. The early Spanish cattle-herders continued some of these practices; however, in the past 50 to 100 years, humans have actively suppressed wildfires. The result has been an accumulation of standing, dead branches which (in some older stands of brushlands) would result in wildfires of a much greater intensity than would occur under a more regular periodic burning regime.

The mixed-broadleaf forest occupies about 900 acres of the parks. Major areas are on the lower slopes of Wildcat Canyon and the northwest-facing draws of San Pablo Ridge. The trees in this forest are coast live oak, bay, and madrone, with maple madrone and buckeye present in smaller numbers. Under the trees there is a rich shrub and herb layer,

including poison oak, blackberry, hazelnut, and numerous other shrubs. Common herbs include Solomon's seal, fairy bells, woodland star, alum root, angelica, sword fern and wood fern.

This association has not been subject to a great degree of disturbance from human activities. It has a high wildlife habitat value because it provides forage, cover and breeding sites for native wildlife.

Eucalyptus plantations occupy about 250 acres of the parks. Major areas are in Alvarado Park, on the ridges northerly of Laurel Canyon and Sweetbriar Canyon, and on the ridges east and south of Lake Anza. This plant association consists of blue gum and red gum eucalyptus trees, with an understory of shrubs and native evergreen trees which is similar to that found in the mixed-broadleaf forest.

These trees were planted as part of a lumbering scheme that developed in the first part of the 1900's. It was believed that eucalyptus could fill a shortage of suitable hardwood in California, and thousands of acres were planted to eucalyptus, chiefly blue gum. About 500 acres in Wildcat Canyon were planted with eucalyptus. Within a few years of the planting, however, further research into the Australian forestry revealed that blue gum is not a suitable species for commercial lumber production, and the groves in California were either removed or abandoned. In the late 1930's, some stands of eucalyptus trees were removed by the CCC as part of their work to construct the Tilden Golf Course. In December 1972, the East Bay area experienced a prolonged freeze, an infrequent recurring phenomenon in the area. The low temperatures caused extensive damage to many tropical and subtropical plants in the area, including eucalyptus. In TRP, the trees in the lower elevations and on slopes with a southerly exposure, were not seriously damaged. Nevertheless, the damage was sufficient for concern among fire officials. This led to the establishment, in the summer of 1973, of a fuelbreak along much of the western edge of the TRP. This was followed by a logging program in areas of TRP. These efforts have reduced the original extent of eucalyptus plantations somewhat.

The eucalyptus trees produce a large volume of litter on the forest floor, including leaves, branches and long shreds of bark. This material is not rapidly decomposed because of the dry climate, and because the non-native eucalyptus plant material is not as susceptible to native decomposers as the native plant material. The result has been accumulations of plant litter of up to 40 tons per acre (Fenwick, 1980). Under such circumstances, a wildfire would be severe and uncontrollable (ibid.).

Other non-indigenous plants in TRP include groves of Monterey Pine and ponderosa pine which have been planted on San Pablo Ridge. Five memorial groves have been planted in TRP using Monterey pine, giant sequoia, Douglas fir, and incense cedar. These groves include memorial signs and plaques, and are symmetrically planted. Orchard and landscaping vegetation persists at several of the historic ranch headquarters localities, at the site of the Belgum Sanitarium and in Alvarado Park. These plantings include a variety of species, including acacia, Russian olive, date palm and eucalyptus. Records in the Botanic

Garden indicate that thousands of non-indigenous plants from all parts of California have been planted in various localities throughout TRP as part of erosion control efforts in the late 1930's. Finally, a variety of landscaping plants have become established in portions of the parks as a result of their spread from adjacent landscaped areas. The primary area affected is along the Berkeley Hills and along Wildcat Canyon Parkway. These plants include Scotch broom, French broom, acacia, German ivy and English ivy.

In several instances, the non-indigenous vegetation found around the parks acts to reduce the suitability of the land for indigenous plants and animals.

Riparian Woodland occupies the streambank areas of Wildcat Creek and the lower portions of its tributaries. It includes arroyo willow, yellow willow, white alder and an understory of shrubs, including poison oak, blackberry, ninebark, creek dogwood, twinberry and elderberry.

Aquatic and emergent vegetation occurs more or less regularly around the shoreline of Lake Anza, Jewel Lake and many of the other ponds in the parks. Cattails are the most common emergent plants, along with bulrushes and sedges. Algae, especially blue-green algae occur throughout these lakes and ponds in some numbers.

The Botanic Garden occupies about seven acres along the banks of Wildcat Creek just south of Wildcat Canyon Road. The garden includes thousands of plants, including trees, shrubs and herbs from every floristic province in California.

The garden also includes dozens of plants which have been identified by the California Native Plant Society as either rare or in danger of extinction. Their presence in the Botanic Garden adds to the value of the collection and offers botanists and others the opportunity to reliably locate and learn to identify these unusual plants.

Two officially protected plants have been planted in the parks; these plants have both been classified as endangered under the California Native Plant Protection Act:

1. The Alameda manzanita (Arctostaphylos pallida), a shrub whose range is limited to the East Bay Hills in Alameda and Contra Costa Counties. This plant has been used as a roadbank planting species along Shasta Road in TRP, and is successfully reproducing there.
2. The Santa Cruz tarplant (Holocarpha macradenia), an annual herb whose range is now limited to Contra Costa, Marin, Monterey and Santa Cruz Counties. This plant has been introduced in eight separate localities in areas of moderate grazing pressure. It has survived and is successfully reproducing in WCRP.

There are six jeopardized plants which occur in the parks. These plants have been listed as rare by the California Native Plant Society (Smith, et al., 1980). These plants have not yet received official protection under either State or Federal law.

1. The Oakland mariposa (Calochortus umbellatus) occurs in the Nature Area 150 yards northerly of the EEC and on San Pablo Ridge easterly of Havey Canyon.
2. The fare-well-to-spring (Clarkia rubicunda rubicunda) occurs in the grasslands along San Pablo Ridge.
3. The western leatherwood (Dirca occidentalis) occurs in a large number of localities primarily in the mixed-broadleaf forest and the brushland portions of the parks. It also has been planted in the vicinity of the Corporation Yard in TRP as a landscaping plant.
4. The rock daisy (Erigeron petrophilus) occurs in Wildcat Gorge in TRP.
5. The white fritillary (Fritillaria liliacea) occurs along the Berkeley Hills northerly of Canon Drive.
6. The Lobb's aquatic buttercup (Ranunculus lobbi) occurs in shallow, temporary ponds in the northerly portions of Wildcat Canyon.

F. WILDLIFE

The diversity and intermixing of vegetative communities provides a productive wildlife habitat. Water is reliably available at Lake Anza and Jewel Lake, as well as along Wildcat Creek, (other water sources are more seasonal). There are also numerous springs. The mixed-broadleaf forest and eucalyptus groves support the greatest number of animals, because of the many food sources (native plants under the eucalyptus and virtually all plants in the mixed-evergreen forest) and good cover. The brushland contains some animals unique to it, and the grasslands are important as habitat for rodents and their predators, such as hawks and owls.

The mammals found in the park include raccoon, long-tailed weasel, California ground squirrel, pocket gopher, deer mouse, black-tailed jackrabbit and black-tailed deer. Domestic horses are kept at the pony ride area in TRP and are often brought to the parks from nearby privately-operated stables or by trailer. Domestic dogs, cats and rabbits are found roaming free in the park.

Domestic cats appear to have become feral throughout much of the parks. There appears to be a number of these animals living in the vicinity of the Environmental Education Center where they apparently obtain food from the park users who regularly bring food to them. These animals can inflict serious injury with their teeth and claws, if handled by park users. They are also capable of transmitting diseases such as rabies and plague to humans, and feline distemper to the pets of park users and

park neighbors. The domestic dogs which have been observed roaming in the park appear to be pets from the adjacent neighborhoods. Although these animals may not have gone feral, they harrass and occasionally may kill wildlife in the park. The domestic rabbits which have been observed in the parks appear to be abandoned pets. It is not clear whether they have begun to reproduce and therefore have become feral. No hunting for mammals is permitted in the parks.

The birds include a variety of raptors such as red-tailed hawk, sparrow hawk, and golden eagle. There are several bird species associated with aquatic habitats, including canvasback duck, mallard duck, and American coot. Among the songbirds in the park are the horned lark, scrub jay, chestnut-backed chickadee, bushtit, northern mockingbird, American robin, song sparrow, western meadowlark, and American goldfinch. Many migratory birds also use the park, including the ducks, barn swallow, cedar waxwing, solitary vireo, MacGillivray's warbler and purple finch. At Lake Anza and Jewel Lake there are a number of domestic ducks and geese present.

Domestic geese are capable of inflicting painful wounds with their beaks and claws, if handled by park users. Both domestic ducks and geese are capable of harboring avian cholera, which could be transmitted to wild migratory waterfowl using these lakes. No bird hunting is permitted in the parks.

The reptiles and amphibians include species such as the western fence lizard, northern alligator lizard, gopher snake, striped racer snake, Pacific rattlesnake, Pacific treefrog, red-legged frog, and western pond turtle.

The Pacific rattlesnake is a poisonous animal, however, there have been no incidents of park users suffering from their bites within recent years. Although frog catching is permissible under State fishing regulations, the District's night curfew regulations effectively prohibit it.

The insects and invertebrates of the park are diverse and abundant. There has been no systematic attempt to survey or identify them. There is a potential for certain common insects to conflict with park users. Ants, yellow jackets and bees can be annoying if present in campground and picnic areas. The tree-hole nesting mosquito is found in the mixed-broadleaf forests of the parks. This animal is capable of transmitting a parasite of dogs called heartworm. There is no effective pest control method for the tree-hole nesting mosquito (Dr. D. Sanders, 1983, personal communication).

The aquatic animals of the park are found primarily in Lake Anza and Jewel Lake; however, there are some species in Wildcat Creek. Among the planktonic animals are species of the rotifers, copepods and cladocerans. Among the gamefish present are rainbow trout, catfish, largemouth bass, bluegill, black crappie, and carp. Notable among these, are native steelhead, which have not hybridized with the hatchery trout commonly planted by the California Department of Fish and Game. These unusual fish have recently been transplanted from their native

Redwood Creek (where they are landlocked) to Wildcat Creek in an attempt to reestablish an ocean-run population. Among the non-game fish are golden shiner, goldfish, and mosquito fish.

Lake Anza supports a small warm-water fishery consisting of introduced fish which reproduce rapidly enough to replace losses to fishermen.

There is one jeopardized animal living in the parks, the Alameda striped racer snake (Masticophis lateralis euryxanthus). This animal is protected as "rare" under the California Endangered Species Act. This snake has been noted most often in brushland areas which have rocky and grassy openings. The only study of this animal, which included diet items, indicated that western fence lizards were a primary food (Hammerson, 1979). Another such animal, the California brown pelican (Pelecanus occidentalis californicus) has been sighted occasionally in the parks. This bird is a marine animal which visits the San Francisco Bay Region in the late summer and fall and fishes for small schools of finger-sized fish in the shallows of the estuary. Its sighting in WCRP and TRP represent accidental visits by birds traveling about the San Francisco Bay estuary.

V. RESOURCES MANAGEMENT ISSUES

The discussion below will outline certain selected natural resource management problems faced in WCRP & TRP and discuss some of the alternative management options available to resolve them. This discussion is meant to result in thoughtful and informed input to the Planning and Design Department about which of the management options are most appropriate. Such input will be used to guide the preparation of the detailed Natural Resources Management Plan contained in the LUDP for each of the parks.

1. Problem: Significant accumulations of dead plant material in the parks' brushland and eucalyptus plantation areas, especially on the easterly slopes of the Berkeley Hills and on the portions of San Pablo Ridge easterly of Lake Anza and easterly of the Environmental Education Center.

Management Options

- a. Do nothing: Under this option, dead fuel will continue to accumulate. Fires which occur in either the brushland or eucalyptus forest areas, will probably become severe and uncontrollable. This would have the potential to damage nearby residential areas and to spread into adjacent open space lands. Such a course could make the EBRPD liable for the cost of fighting the fires and repairing damage to adjacent lands.
- b. Mechanical and hand labor debris removal: Under this option, the accumulations of fuel would be removed using hand labor and/or heavy equipment and possibly using herbicide applications. Hand-clearing in brushland areas involves the use of modified chainsaws to cut the standing dead brush, and manual labor to carry the material away. Heavy, tracked equipment can be used to break off the dead brush instead of chainsaws. Alternately, herbicides may be used to kill all of the brush the year prior to mechanical or hand removal, and thereby ease the work of removal. In the eucalyptus forest areas, chainsaws or heavy equipment would be used to cut up the larger debris and hand labor and heavy equipment would be needed to carry the debris out. Regardless of the removal method, there would be several hundred tons of woody debris to be disposed of. Disposal options include stacking and burning, lopping and scattering on site, removal to a landfill site and chipping. If the debris were chipped, it could then be dried and used as a fuel, spread along trails and on erosion areas as a mulch, or composted (perhaps in combination with the sewage sludge disposal operation of a cooperating sewage treatment plant). Such a course would commit the EBRPD to a substantial increase in staff and equipment for the two parks.

- c. Use of prescribed fire: Under this option, brushland and eucalyptus forest areas would be divided into units designed to facilitate the containment of a fire within the unit. Brush and trees would be removed to establish fuel breaks between these units. To establish and maintain fuel breaks, hand-clearing, introduction of goats, mechanical clearing, herbicides and/or prescribed fire methods could be used. In the case of the eucalyptus forests, private timber operators who are interested in the harvest of firewood could be licensed to remove the trees in designated fuel break areas. Once fuel breaks are established, fires would be set in accordance with the prescription of experienced fire ecologists. One fuel break was established along the Berkeley Hills in 1973. In 1982, the Blue Ribbon Fire Prevention Committee recommended the extension of this fuel break as a variable-width break from its current northerly terminus north to McBryde Ave. Prescribed fires would burn the accumulation of fuel in place under fire conditions calculated to avoid killing mature trees. In the eucalyptus forest, the same area might have to be burned for two or three successive years to reduce the fuel loads from the existing levels of up to 40 tons per acre down to more desirable levels. The frequency of subsequent maintenance fires would have to be determined by measurements in the field, but it is likely that there would be several years between burns. In brushland areas, after the establishment of fuel breaks, fires would be set in accordance with the prescription of experienced fire ecologists. It is likely that sufficient fuel reduction could be accomplished with a single burn and that subsequent maintenance burns would be needed at intervals of about 15 to 20 years. Such a course would require the EBRPD to either hire an outside prescribed fire crew or to train a special unit of the District's volunteer firefighters to do this work. If District crews are used, a commitment of the time of these individuals away from their other responsibilities would be needed. This time would be required on a short-notice, all-day basis, because of the need to wait for the prescribed weather conditions and to remain at the burn site until the "mop-up" of the fire is complete.
2. Problem: Several non-indigenous plants introduced into the parks have reproduced and spread to the detriment of the indigenous plants and some indigenous animals. These non-indigenous plants include: acacia, Scotch broom, French broom, artichoke thistle, eucalyptus, English ivy, and German ivy.

Management Options

- a. Do nothing: Under this option, significant alteration of the flora would continue as non-indigenous plants displaced or, in the case of the ivys, physically choke the indigenous plants. Dense stands of Scotch broom, French broom and acacia can act to inhibit or deny public access to portions of the parks. This option would be contrary to the Vegetation Manual (which

states policies to remove non-indigenous plants in conflict with landscaping or maintenance activities) and the Pest Species Management Program (which states policies to remove artichoke thistle from ridgetop localities in WCRP and TRP). Such a course would not require the commitment of significant additional amounts of District labor or funds.

- b. Mechanical control methods: Under this option, the trees would be cut using chainsaws, the broom and thistle would be pulled using hand tools and the ivy would be pulled by hand. Most of the dead material would be herbacious and could be disposed of by (lopping and) scattering. However, the ivy must be dried, stacked and burned to prevent the cuttings from re-rooting. To achieve the control levels specified by the Vegetation Manual and the Pest Species Management Program, additional labor must be provided for the parks. To provide any additional control of non-indigenous species for habitat improvement purposes using these methods, a substantial increase in labor must be provided to the parks.
- c. Biological control methods: Under this option, goats would be used to control Scotch broom, French broom, English ivy and German ivy (they would not be effective for the control of the other plants). Plant diseases or insects are not feasible for the control of any of these plants because of the potential for damage to nearby crop or landscaping plants. To provide any control of these plants using goats, a commitment of labor would be needed for goat herding and shelters would be needed for the goats during the winter.
- d. Use of prescribed fire: Under this option, areas with Scotch broom and French broom would be divided into units designed to facilitate the containment of a fire within the unit. (Prescribed fire is not feasible for the control of the other plants because they are not easily killed by fire.) Brush would be removed to establish fuel breaks between these units. To establish and maintain fuel breaks, hand-clearing, introduction of goats, mechanical clearing, herbicides and/or prescribed fire methods could be used. Once fuel breaks are established, fires would be set in accordance with the prescription of experienced fire ecologists. The same area might have to be burned for two or three successive years to effectively kill the broom plants and their seedlings. Such a course would require the EBRPD to either hire an outside prescribed fire crew or to train a special unit of the District's volunteer firefighters to do this work. If District crews are used, a commitment of the time of these individuals away from their other responsibilities would be needed. This time would be required on a short-notice, all-day basis, because of the need to wait for the prescribed weather conditions and to remain at the burn site until the "mop-up" of the fire is complete.

- e. Chemical control methods: Under this option, herbicides approved by the District would be used to control the shrubs and ivy and to treat the stumps of trees cut with chainsaws. This option could be used to control non-indigenous plants to levels specified by the Vegetation Manual without a significant additional commitment of labor and with a modest increase in the cost of purchasing herbicides. Additional control of non-indigenous species for habitat improvement purposes could be achieved with a modest further increase of labor and in the cost of purchasing herbicides.
3. Problem: Substantial erosion is occurring along the trails and maintenance roads.

Management options

- a. Do nothing: Under this option, erosion would continue. During years of heavier than normal rainfall, trails and roads would be severely damaged, reducing their utility, or cutting off use entirely. This could reduce the ability of District personnel to respond to emergency situations in the park, restrict hiking and equestrian uses, and would contribute to siltation in Wildcat Creek, Lake Anza and Jewel Lake. This threatens the steelhead recently reintroduced in Wildcat Creek and may require periodic silt removal operations in the affected water bodies. Such a course would cause District maintenance costs to vary significantly from year to year, depending on the severity of the winter rainfall patterns.
- b. Close some trails: Under this option, a number of trails in the parks would be closed, their culverts and cross drains would be removed, and vegetation would be reestablished. In any attempt to reroute or close a trail, physical barriers and signs will be needed to discourage continued use of them by the public. Such a course would require a commitment of labor and equipment which would vary with the amount of trail closed.
- c. Establish and maintain culverts and water bars: Under this option, much of the existing road and trail system would be modified by the placement of culverts and water bars, to intercept runoff water at intervals frequent enough to prevent erosion and direct it into established water courses or to energy dissipation structures and then to overland flow. Although this work is theoretically part of normal trail maintenance efforts, it is, in fact, not being accomplished consistently throughout the existing trail system. This course would require an ongoing commitment by District maintenance staff both for training in the proper methods of erosion control and for the extra effort needed in routine maintenance, to be sure that water bars, culverts and erosion control structures are established and remain effective.

4. Problem: Substantial erosion is occurring in the landslide areas.

Management Options

- a. Do nothing: Under this option, erosion would continue. Silt carried in the runoff waters will primarily affect Wildcat Creek. This threatens the steelhead recently reintroduced there, and will require periodic silt removal operations in the lower reaches of the creek to prevent flooding.
- b. Establish siltation basins: Under this option, a series of dams would be constructed in the drainages below the landslide areas to remove the silt from runoff waters. It also would require regular removal of silt from these basins to assure their continued effectiveness. This would require a commitment of several thousand dollars for dam and access road construction and an ongoing commitment to remove silt from the new basins and to maintain the dams and maintenance roads.
- c. Seeding of landslides: Under this option, an erosion control seed mixture would be spread over those landslides which are recently active and have significant barren areas. This would require a modest commitment to purchase and spread the seed mix in those years when landslides become active.

5. Problem: Numerous free-roaming domestic cats, dogs, rabbits, ducks and geese occur in the parks.

Management Options

- a. Do nothing: Under this option, there would continue to be numerous free-roaming domestic animals. This course could result in District liability for injury or disease suffered by park users who have contact with these animals.
- b. Trap and removal: Under this option, the feral cats, dogs, rabbits, ducks and geese which are in conflict with other park uses would be trapped and surrendered to the County animal control officers. This course of action would require the acquisition of "live traps" suitable for each species and the ongoing commitment of staff time necessary to set and check the traps and to transport the animals to the animal control center.
- c. Dispatch animals on site: Under this option, qualified District personnel would shoot feral domestic cats, untagged domestic dogs, domestic rabbits, ducks and geese. At present, the only District employees authorized to possess weapons on District lands are the sworn officers of the Public Safety Department. However, the Board of the EBRPD could modify its ordinances to permit the possession of weapons by other authorized District staff (e.g. the Board could authorize its wildlife management specialist to possess weapons for this purpose).

- d. Use poison bait: Under this option, poison baits would be placed in areas frequented by these domestic animals. This course would require an ongoing commitment of District staff time to place baits and possibly to dispose of dead animals found in the use areas.
 - e. Posting of the areas where domestic animals are commonly released and/or fed by the public, coupled with an aggressive law-enforcement program. This option would require an additional commitment of Park Police to enforcement duties in the parks.
6. Problem: The existing boundary between WCRP and TRP is reflective of old property lines stemming from the days prior to the aquisition of WCRP.

Management Options

- a. Do nothing. Under this option, the present circumstances would continue with confusion about the extent of resource management responsibilities between crews assigned to the two parks and consequent neglect of certain responsibilities by both crews. Such a course would not require the commitment of significant additional amounts of District labor or funds.
- b. Alter the official park boundaries as shown in Figure 14: Under this option, the entirety of the Nature Area would be included in Wildcat Regional Park to clarify management responsibilities.
- c. Alter the official park boundaries in some other configuration which would facilitate a clear and logical division of maintenance responsibilities.

VI. SUMMARY AND CONCLUSIONS

Wildcat Canyon and Tilden Regional Parks include almost the entire upper watershed of Wildcat Creek and offer diverse topographic features ranging from relatively level creek bottoms to steep-sided canyons and lofty ridges. This provides a variety of self-contained views, as well as distant vistas across undeveloped lands to the east and a major urban complex to the west. The Creek is subject to frequent and extensive flooding. The water quality in the Creek is affected by the nutrients and minerals carried by sediment from the erosion of numerous active landslides. The park is underlain by sandstone, shale and conglomerate rocks with one active and several inactive faults. Soils are primarily loams of moderate fertility and erodability. The climate is one of cool, rainy winters and balmy, dry summers. The vegetation has been substantially altered by human influence, yet it offers a variety of wildlife. There are areas of brushlands and eucalyptus plantations which have not been burned in 20 to 30 years, and have substantial accumulations of fuel which could result in a serious and uncontrollable wildfire. There are domestic animals loose in the park which could cause significant problems for park users. There are several jeopardized plants and at least one jeopardized animal in the park.

These two parks include an area with significant natural resources located immediately adjacent to the major population centers of western Alameda and Contra Costa Counties. Thus, an important variety of recreation opportunities are offered which are well used and popular. Past human activity has left conditions within the park which, without corrective management efforts, could result in a disastrous wildfire, and continued significant erosion and siltation problems which could threaten popular park uses.

INPUT TO THE TILDEN PARK LAND USE PLAN
FROM THE TILDEN PARK CREWS

I. SIGNIFICANT RESOURCES

In General the significant resources are:

- o Opportunity for solitude and "getting away from it all", peacefulness
- o Existing open space(not developed) that is secluded and peaceful
- o The values of wildlife, watershed serenity are more important than the values of increased recreation facilities.
- o Jewel lake and dam built by WPA/CCC (check)
- o WPA stone work monuments gutters, toilets
- o "Mystery" walls of stone
- o Prehistoric petroglyphs
- o Little farm
- o Many people come to Tilden for the natural aspects, such as vegetation, wildlife.
- o There is a fear of defining a definite boundary in park for interpretive uses - because interpreters use the whole park and don't wish to be restricted
- o Preserve a historical sense of the park
- o History of park and remaining remnants (walls, structures, plantings, and existing names.

Watershed Resources:

- o The watershed is basis of all park life: the vegetation and animals and their ecosystem and interaction
- o The whole park is the watershed
- o Creek area between Little Farm, and Meadows playfield is an important interpretive resource (more important than Jewel Lake is) (should not be made into a silt pond) ?
- o Riparian vegetation in creek
- o Wildcat creek gorge Indian caves
- o Laurel Canyon
- o Waterfalls at Big Springs, Brook, Mineral Springs
- o Natural springs at Mineral Springs and nature area are - now unused or underused and could serve wildlife use
- o Springs are a source of water for wildlife
- o Meadow ponds and slump ponds for wildlife water
- o Lake Anza and Jewel Lake are an important wildlife habitat area

Significant Vegetation:

- o Riparian vegetation of Wildcat Creek and habitats, leatherwood trilleum

INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY

AUG 27 1991

UNIVERSITY OF CALIFORNIA

- o Other vegetation types moist chapparal, native grasses, eucalyptus groves, pine groves, fern groves, mushrooms, liverworts
- o Vegetation of the north and east facing slopes
- o the peace grove (significant, not necessarily good)
- o the peace grove (is not significant)
- o important native plants (including some planted specimens introduced by James Roof are found throughout park and are not mapped - see Hawlik and Edwards.)

Wildlife that is Significant:

- o All native wildlife is very significant
 - o Cougars, bobcats, lions, coyotes, snakes, grey fox, red foxes, skunks, insects, opossum, golden eagles, trout, deer, spiders etc.
 - o Turtles in Jewel Lake important for their large numbers
- Birds? Amphibians?*

Recreation Facilities that are Significant:

- o Park is unique in that it serves everyone's needs for both recreation and open space
- o Opportunity for individual activities such as jogging, hiking, nature study
- o Picnicking
- o swimming at Lake Anza
- o pony ride
- o Botanic garden
- o golf course
- o golf course important
- o golf course should be removed
- o Little train
- o Jewel Lake and boardwalk
- o Tilden Nature Area;
- o original square mile Tilden Nature Area
- o Environmental Education Center (EEC)
- o Trails
- o paved trail-Nimitz Way
- o Brazil Room
- o Dog run (may be more perceived importance than actual significance)
- o youth group camps
- o benches (with backs)
- o tennis courts (significant for a few people)
- o Meadows playfield
- o Jr. Ranger lodge
- o Merry-go-round and tot lot
- o Little Farm (vital part of education program of EEC)
- o Quarry for scrambling (rock climbing)
- o Botanic garden (including plants structures, irrigation, ½ acre of lawns, WPA rockwork and hedges etc.)
- o picnic sites (they reach capacity only when it's hot on summer weekends and holidays)

- o Existing Openspace
- ? o equestrian (informal) camping area east of Mineral Springs

Other Significant Resources:

- o View opportunities from higher elevations and good air quality there
- o Quarry-interpretive significance and source of stone for park projects
- o rock outcrops & Indian caves
- o edge resources: view shed views
- o "fault gouged" soil
- o corporation yard (important to District rather than Tilden?)

II. RESOURCE MANAGEMENT ISSUES

General Issues:

- * o Maintenance of natural areas has been secondary to developed areas; this is not right
- o resource protection is essential to the park
- o habitat boundaries are not necessarily human boundaries
- o different areas of park need different maintenance and operational practices for particular needs and purposes (this may be difficult because of the existing units like botanical garden, Tilden Nature Area etc.)
- o Tilden Nature Area needs a different type of management than the rest of Tilden because of the heavy interpretive use (e.g. seasonal closure of some roads in areas, different pruning methods etc.)
- o Fire Department needs to interface with park management on control burns, fuel leak, goats etc. to avoid management problems)
- o asphalt trails/roads can preserve soil and space.
- o concern with expansion of Botanical garden and newt breeding ground and migration paths.

Watershed/Erosion Issues:

- o siltration a problem in several areas
- o several sources of silt need research, many are unknown
 - house north of Canon Drive;
 - landslide aiming eastward toward Jewel Lake (where is it coming from south of Anza?)
- o Park receives runoff from Berkeley streets. Plugged culverts cause runoff and siltration into creek.
- o Problems with Canon Drive with erosion of silt traps.
- o siltration into Jewel Lake largely caused by Kensington runoff system, neighbors back yards
- o Until 14 years ago Jewel Lake was dredged yearly
- o silting of Jewel Lake threatening Heritage Oaks
- o Is Little Farm silt pond adequate between Jewel Lake and Anza?

- o "Loop Trail" around Tilden Nature Area and other service roads cause major drainage problems.
- o Lake Anza-needs attention-serving many purposes (what is problem?)
- o Keep botanical garden out of creek because of habitat for newts, deer, etc old bay trees should not be removed
- o Botanic garden expansion is necessary in creek area.
- o Corporation yard-oil pollution into creek
- o leach fields and watering of surrounding residences adding to landslide problems in park?
- * o Analyze landslides before completing LUDP
- o Landslides jeopardizing both Canon Dr. and South Park Drive-only access to Tilden Nature Area

Vegetation Issues:

- o view will change with eucalyptus growth and which views do we want to keep open?
- o trash disposal is a problem
- o significant vegetation should be protected. Vegetation can be affected by manipulation of natural succession.
- o safety of eucalyptus in some areas should be evaluated for safety hazards
- o Eucalyptus is important for holding soil and for wildlife habitat
- o Eucalyptus sucker growth is weak.
- o Braided stream caused by silting in of Jewel Lake is drowning Heritage Oaks
- o Riparian canopy removed through much of golf course
- o Rare Manzanita is growing on golf course service road opposite Brazil Room lawn
- o Botanic garden requires specialized management
 - #1 collection of native California plants
 - Most extensive collection of species of California native plants, 2000 species
 - most extensive collection of rare and endangered California Native
- o invasive non-natives are a concern
- o District wide need for nursery space
 - Botanical garden needs it to be close to garden
 - Botanical garden and CNPS need to be with Botanic garden
- o Open space areas threatened by invasive plants and plant succession.
- o Need a policy on donated trees and other gifts?

Wildlife Issues:

- o EBMUD and Wildcat Canyon grazing cattle escape into Tilden
- o Manure disposal from farm (CK pony ride) requires attention
- o evaluate domesticated waterfowl at Jewel Lake.
- o feeding of feral cats
- o chain link fences restrict movement of wildlife

Other Issues:

- o Fuel break neighbors are not doing their part to keep it clean (like Villa Mir Vista) (Check this p. 4) (could pose liability problems)
- o Viewshed from some areas like Volmer Peak will be downgraded by future development
- o Viewshed adversely affected by antennas.
- o Microwave towers are a health hazard
- o Low staffing levels has lead to many problems (esp. trail maintenance)
- o fire trails graded too wide; narrower trails are needed
- o original 1 square mile boundary of Tilden Nature Area (with no buffer and "no dogs" restrictions) is needed to maintain major resource area for interpretation. Scheduling of maintenances is important to maintain peace and quiet during interpretive programs
- o Use of pesticides by PG&E to maintain right of way should be addressed

III. USE ISSUES

Facilities/Utilities Issues:

- o Nocturnal animal hall needs work
- o Environmental Education Center turfed meadows have wet dry areas - difficult to maintain.
- o Stone gutters etc. need repair by a skilled crafts person.
- o Facilities are too near the roads.
- o evaluate corporation yard building
- o move district corporation yard
- o leave district corporation yard
- o future development of botanical garden buildings need improvement:
 - north tool shed, potting shed, old office, enlarge office/staff study space auditorium, electricity to center of garden, alarm in building, need soil storage outside garden (at turn on Anza View Drive.) & retain at Camp Oak. Trails and irrigation in new area.
- o There is California Native Plant Society pressure on district for nursery space. For annual plant sale which helps support the botanical garden
- o Trails-Wildcat Creek Trail needs rerouting now that botanical garden enlarged downstream
- o park is being overdeveloped and all new development seems to get thrown into Tilden
- * o Water problem for corporation yard and south park drive is antiquated.
- o Meadow's play field too wet
- o Adjacent neighbors want their own trail into park-want park to develop and maintain them.
- * o Sewer management need evaluation-honey bucket vs. lift station
- o some picnic areas overused
- o shelter at New Woodland camp needs improving
- o Little farm is not in good shape, needs renovation (& money).
- o park users are dissatisfied with trail maintenance.

Traffic/Parking Issues:

- o Roads are too narrow for demand they receive from cars, bikes & joggers.
- o Need separate biking, jogging trails
- o Convert Wildcat Canyon and Central Park Drive and Canon Drive to a one way loop road
- o close some park roads and use a shuttle to move park users around
- o Parking for equestrian rigs should be considered because they are inappropriate and impact regular parking lots
- o there is not enough parking
- o re-evaluate new capital plan for parking at foot of Brazil Room lawn-this would be ugly.

- o the parking behind the Brazil Room is ok.
- o all facilities (including wood sides) in park should have parking needs re-evaluated.* Perhaps parking needs re-arranging not increasing
- o additional parking needed for Brazil Room
- o Interaction of Canon Drive & Central (at Indian camp and pony ride)
- o 4 corners is a problem area (Claremont/Canyon and Fish Ranch Road
- o design of roads outdated.
- o More equestrian staging needed
- o Parking needed
 - for Brazil Room
 - Botanic Garden
 - Lake Anza, train ride
- o consider timed parking at merry-go-round
- o Seperate bike and jogger trail along Wildcat Canyon Drive between botanical garden and park hills needed for safety
- o roadside parking users safety problems, erosion, eye sores.
- o *re-evaluate parking for whole park
- o *conflict between parking for Anza and merry-go-round.
- o paving needed in some overflow parking areas to reduce erosion problems.
- o If Canon Drive and Central Park Drive both jeopardized by landslides which should be saved?
- o If either landslides closes, traffic will impact other roads.
- o intersection at Lake Anza & merry-go-round.
- o the idea of moving Central Park Drive east of Meadow's Play Field has negative impacts.
- o More parking needed for large groups reserving Meadows Group Picnic area.
- o Remove road in Tilden Nature Area between Environmental Education Center service yard and Jewel Lake restroom.
- o Corporate sized picnics bring traffic problems
- o Tilden is too full of cars-is dangerous to kids

Issues Concerning Adjacent Neighbors, development etc:

- o Future development affecting view shed (at Lomas Cantadas (Siesta Valley) is important. What is district policy on buffer zones? (sale of water district property)
- o neighbors encroachment on park property
- o neighbors use park as dump. Fuel break has to be built in park and solve their problems.
- o neighbors leach fields, storm drains, etc pollute park.

IV. PLANNING PROCESS

- o Trail maps and public information about park is inadequate
- * o What is proper approval for changes in a park before an LUDP is done?

- o Naturalist staff uses entire park and want to be in on all land use decisions.
- o Reorganization has subdivided management of Tilden requiring additional coordination.
- o Present draft LUDP to park crews
- o staffing is critical to maintaining park facilities and natural areas.
- o Do a demographic study
- o keep baby boom in mind for planning recreational facilities
- * o whole park crew should be consulted on changes as large as the recent expansion of the botanical garden
- * o more time should be taken in making planning decisions. Piece meal decisions have an impact on the entire park.
- o standardize gate design at staging areas.
- o hire a traffic consultant who will visit the park at normal and peak use hours.

V. INPUT ON PARK DEVELOPMENT AND FACILITIES

General Comments:

- o Do not increase recreational facilities because park already highly developed, traffic problems, and need to preserve natural resources).
- o Berkeley Shakespeare Festival would take needed open space.
- o Carve Berkeley Shakespeare Festival area out of unused golf course space or developed area instead.
- o Park is not meeting existing demand for family picnic parking
- o Need bike and jogging paths along roads especially on Wild Cat Canyon because of narrow, winding roads.
- o Don't concentrate facilities like train rides, pony rides etc., keep them spread out, as they are
- *o An eventual capacity limit will be needed in certain areas and in the park in general to preserve the quality of park experience.
- o know what is in the park and demonstrate to resolve to protect it before opening the process up to public input

Comments on Existing Facilities & Future Development

- o California Native Plant Society and Botanical garden's first choice for nursery space has always been the old driving range (idea abandoned when it was thought that Berkeley Shakespeare Festival would get space.)
- o retain existing entrance and visitors center at Botanic Garden
- o more shelters needed at group camps, especially Blue Gum-if they can be used more, will reduce stress on other areas
- o retain equestrian camp East of Mineral Springs but remove jumps.
- o remove tennis courts
- o pony ride-should remain, secluded uphill areas are good-help hide facility
- o pony ride needs upgrading
- o move pony ride to model airplane field-is a larger area.
- o use of model airplane field has declined since remote control planes have come into use, (they have moved to San Leandro Bay, Pt. Pinole and Coyote Hills,).
- o Tilden should remain status quo (if new facility is added, remove something else)
- o don't add anymore picnic areas, park is at capacity now.
- o Berkeley Shakespeare Festival facility is totally inappropriate for the old driving range site and for the entire park as well.
- o New Woodland group camp needs improved amphitheater, stone and improved shelter.
- o convert Gillespy Youth Camp irrigation system to meadow-type system.
- o renovate old pump house by Lake Anza
- o There are enough family picnic sites
- o Improve group picnic design like Willow; tables too aligned, no shade etc.

- o Do not construct horse rental stables because of problems with novice riders
- o restudy botanic garden expansion
- o Re-evaluate the capital plans for the botanical garden and Brazil Room
- o re evaluate the entrance to the Enviornmental Education Center (should there be seclusion or open view?)
- o remove the Tilden golf course
- o remove the fence around the golf course
- o Maintain stone motif to be consistent with existing stonework.
- o tot lot and merry-go-round need renovation
- o shade trees needed at some picnic areas (how to water)
- o no more memorial groves
- o remove existing plaques - need more outdoor intrepertive signs
- o Establish a service yard at old driving range.
- o Remove old pump house by Lake Anza
- o analyze appropriateness of "live steamers"-is it really open for public use
- o Illegal ORV's a problem
- o ? "Trail Hikes" a problem
- o Horseback riding increases the trail maintenance problems
- o overuse of train ride; Indian Camps etc. area at certain times of year
- o Corporate sized group picnics bring traffic and parking problems and need large areas.
- o analyze need for addition restrooms (like at little train)
- o analyze appropriateness of the design of some of the existing restrooms (prison-like design and lockable doors of recent restrooms unacceptable).
- o some restrooms too dark
- o evaluate substation at Lake Anza after it operates for awhile

Comments on Infrastructure & Utilities:

- o Old waterlines rusty
- o There is inadequate water to protect facilities.
- o There are too many picnic areas, some unused, some not maintained
- o Meadones Playfield picnic area-needs facilities (tables) for larger groups and parking to serve it.
- o Environmental Education Center splitting in half (built on fill) storage inadequate, temperature problems, acoustics in rotunda terrible - adversely affects fire well. Auditorium needs natural light-has many problems (what?); exhibits archaic-need renovation; (with staff assistance) exhibits should address watershed issues. Exhibits need continuity; internal access needed for wheelchairs
- o Tilden maintence crew needs its own identifable service yard space; a new space if no changes are made in the current corporation yard.
- o add no more water lines; will bring in additional development
- o remove District corporation yard but do not remove historical structures
- o do not take water to Inspiration Point

East Bay Regional Park District
TILDEN PARK PLAN GUIDING PRINCIPLES

AUG 27 1991

JANUARY 22, 1987

UNIVERSITY OF CALIFORNIA

1. Since formation of the EBRPD, over 50 years ago, there has existed two disparate philosophical ideas which have influenced the development of Tilden Park lands. Some have felt that the maintenance of the park in a naturalistic condition would be of greatest value, while others have felt the need to develop the area as a metropolitan park. Tilden now represents a balance between these ideas where preservation and development have been embodied into a single park. The proposed plan is an evolution from the historic past of Tilden Park as opposed to a radical new departure.
2. Maintain approximately the same ratio of developed area to undeveloped area.
3. Preserve and enhance the natural vegetation and habitat features of the park.
 - a) The riparian corridor along Wildcat Creek and the other water-courses should be preserved, and where disturbed enhanced and replaced, if possible.
 - b) When making decisions concerning landscape aesthetics, natural wildlife enhancement should be given equal weight.
 - c) Areas of unique biotic significance should be preserved.
4. Tilden Park has historically been a heavily used park due to continued population growth; we expect that this relatively high level of use will continue. The impact of the plan should not be to either significantly increase or to decrease public use of the park. The proposed areas of development and change within the park should help to increase public enjoyment of the park and should also help to channel and guide public use of the park in a way that will prevent damage to the natural resources of the park.
5. Over time, there should be a gradual reduction in the use of automobiles within the park and a compensating increase in pedestrian, bicycle and equestrian use in the park. This can be accomplished and encouraged in a number of ways.
 - a) Better year-round public transportation should be provided to and through the park.
 - b) The development of a well-marked family trail connecting the major recreation features of the park will provide a convenient and attractive pedestrian walkway between the major uses in the park.
 - c) Better parking and trail head facilities should be provided on the periphery of the park, especially near public transportation, to encourage people to either come to the park by bus or to stop their car at the edge of the park and to hike and walk into the park entrance, especially as related to the closing of the District-wide corporation yard.
 - d) Close off roads wherever possible.
 - e) Special provisions must be made for handicapped people with specially marked and delineated handicapped routes near some of the major facilities and important natural resource areas.

6. Significant historic features, both natural and cultural, will be preserved wherever possible.
7. Maintain and enhance the existing landscape character through the maintenance of the diversity of native and exotic vegetation.
 - a) Maintain the role of Tilden as a primary place to introduce urban people to the values of nature and educate people on how to utilize and appreciate their natural surroundings without destroying them.
 - b) The park is unique because of its proximity to a large urban population. The park must continue to provide the public with the space to find solitude as well as a place to gather, freedom of movement as well as relaxation, contact with nature and escape from the pressures of urban society.
 - c) The park provides a great scope of recreational facilities accessible to everyone and should continue in this policy.
8. Provide for the democratic and humanistic needs of people for open space adjacent to urban areas which cannot be provided for in neighborhood parks and playgrounds or in nature preserves.
9. Planning for the park must consider:
 - a) The park is intimately tied to its adjacent open space (water district and other parklands) as well as the Berkeley Hills community. It is an integral part of the landscape in which it lies, which includes the even broader regional fabric of the East Bay and beyond.
 - b) It is a link in the chain of parks that binds together the open lands of the East Bay.
 - c) It is an "edge" between urban development and "wildlands".



C124903504

U.S. GOVERNMENT PRINTING OFFICE: 1967

1-7071

1. The following information is being furnished to you for your information and is not to be used for any other purpose.

2. The information is being furnished to you for your information and is not to be used for any other purpose. The information is being furnished to you for your information and is not to be used for any other purpose.

3. The information is being furnished to you for your information and is not to be used for any other purpose. The information is being furnished to you for your information and is not to be used for any other purpose.

4. The information is being furnished to you for your information and is not to be used for any other purpose. The information is being furnished to you for your information and is not to be used for any other purpose.

5. The information is being furnished to you for your information and is not to be used for any other purpose. The information is being furnished to you for your information and is not to be used for any other purpose.

6. The information is being furnished to you for your information and is not to be used for any other purpose. The information is being furnished to you for your information and is not to be used for any other purpose.